



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,634	08/05/2003	Hye-Jin Choi	45181	6378
<div>1609 7590 12/11/2008 ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036</div>				
EXAMINER				
BANTAMOL, ANTHONY				
ART UNIT		PAPER NUMBER		
2423				
MAIL DATE		DELIVERY MODE		
12/11/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/633,634

Applicant(s)

CHOI ET AL.

Examiner

ANTHONY BANTAMOI

Art Unit

2423

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 21-92 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 21, 24, 32-40, 43, 47-48, 52-53, 56, 62, 64-66, 69-72, 75, 77-79, 82-84, and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki et al US Patent Publication 2001/0052126, in view of Senoh US Patent Publication 2003/0007780 (hereafter referenced as Nanki, and Senoh).

Regarding claim 21, Nanki teaches requesting the contents of a recording medium of a receiving, recording and reproducing device using a remote controller which reads on "receiving a request signal to access the video and/or audio program among the video and/or audio programs stored in the video and/or audio recording/reproducing apparatus" (Para. 0062: Nanki teaches displaying a program guide which reads on "displaying a program list" (Para. 0065, & figure 5: Nanki teaches accessing the video and/or audio program based on a selection made in a display screen displaying the program list" (Para. 0063).

Nanki is silent about a list comprising an image corresponding to each of the video and/or audio programs.

Senoh teaches a list comprising an image corresponding to each of the video and/or audio programs (Para. 0122, ll. 4-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki to include a list comprising an image corresponding to each of the video and/or audio programs as taught by Senoh in order to support trick play from a digital storage medium.

Regarding claim 24, Nanki teaches a program title information in a program guide which reads on “the method, wherein the displaying of the program list comprises displaying a list of one or more of title information, recording date information and reproducing time information of the video and/or audio programs” (Para. 0054).

Regarding claim 32, Nanki teaches the method, wherein the video and/or audio recording/reproducing apparatus is provided to receive a video and/or audio program from a plurality of video and/or audio program sources (Para. 0028, ll. 1-5).

Regarding claim 33, Nanki teaches a storage device connected to the receiving and reproducing device which reads on “the method, wherein the video and/or audio programs are stored in a storage device associated with the video recording/reproducing apparatus” (figure 2, label 200).

Regarding claim 34, Nanki teaches user instruction to receiver reproducing device to display program list originating from a remote controller which reads on “the

method, wherein the receiving of the request signal comprises receiving the request signal from an external input device" (Para. 0062).

Regarding claim 35, Nanki teaches MPEG-2 encoded video/audio data for listed programs which reads on "the method, wherein the video and/or audio programs stored in the video and/or audio recording/reproducing apparatus are data compressed according to a predetermined compression format" (Para. 0056).

Regarding claim 36, Nanki teaches MPEG-2 encoded video/audio data for listed programs which reads on "the method, wherein the predetermined compression format is an MPEG compression format" (Para. 0056).

Regarding claim 37, Nanki teaches requesting the contents of a recording medium of a receiving, recording and reproducing device using a remote controller which reads on "receiving a request signal to display the information regarding the video and/or audio programs stored in the video and/or audio recording/reproducing apparatus" (Para. 0062: Nanki teaches a program guide including program titles which reads on "displaying the information comprising: one or more of title information, recording date information and reproducing time information of the video and/or audio programs" (Para. 0065, & figure 5).

Nanki is silent about an image corresponding to each of the video and/or audio programs.

Senoh teaches an image corresponding to each of the video and/or audio programs (Para. 0122, ll. 4-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki to include an image corresponding to each of the video and/or audio programs as taught by Senoh in order to support trick play from a digital storage medium.

Regarding claim 38, Nanki teaches encoding and outputting the encoded signal corresponding the to the selected program on program list from recording medium, which reads on "the method, wherein the displaying of the information comprises outputting a signal corresponding to the information by the video recording/reproducing apparatus to display the information on a display screen" (Para. 0062).

Regarding claim 39, Nanki teaches a program guide that allows easy access to program on recording medium which reads on "the method, wherein the information is displayed so as to allow access to a video and/or audio program amongst the video and/or audio programs based on a selection made in the display screen" (Para. 0063, & figure 5).

Regarding claim 40, Nanki teaches a program title information in a program guide which reads on "the method, wherein the displaying of the information comprises displaying one or more of the title information, recording date information and reproducing time information of each of the video and/or audio programs, and images corresponding to the respective video and/or audio programs" (Para. 0054).

Regarding claim 43, Nanki teaches MPEG-2 encoded video/audio data for listed programs which reads on "the method, wherein the video and/or audio programs stored

in the video and/or audio recording/reproducing apparatus are data compressed according to an MPEG compression format" (Para. 0056).

Regarding claim 47, Nanki teaches requesting the contents of a recording medium of a receiving, recording and reproducing device using a remote controller which reads on "receiving a request signal to display the information regarding the video and/or audio programs stored in the video and/or audio recording/reproducing apparatus" (Para. 0062: Nanki teaches a program guide with program title information which reads on "displaying the information comprising: one or more of title information, recording date information and reproducing time information of one of the video and/or audio programs" (Para. 0065, & figure 5).

Nanki is silent about images corresponding to the respective video and/or audio programs.

Senoh teaches images corresponding to the respective video and/or audio programs (Para. 0122, ll. 4-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki to include images corresponding to the respective video and/or audio programs as taught by Senoh in order to support trick play from a digital storage medium.

Regarding claim 48, Nanki teaches MPEG-2 encoded video/audio data for listed programs which reads on "the method, wherein the video and/or audio programs stored in the video and/or audio recording/reproducing apparatus are data compressed according to an MPEG compression format" (Para. 0056).

Regarding claim 52, Nanki teaches the method, wherein the displaying of the information comprises displaying the one or more of title information, recording date information and reproducing time information of the one of the video and/or audio programs in response to a selection of a corresponding one of the images being displayed (Para. 0065, & figure 5).

Regarding claim 53, Nanki Teaches a recording medium connected to the reproducing means which reads on "an interface unit for receiving an input signal to access the video and/or audio program among video and/or audio programs stored in the storage device" (figure 2: Nanki teaches a main control unit for providing a program list, and accessing the video and/or audio program based on a selection made in a display screen displaying the program list (Para. 0070, ll. 2-20).

Nanki is silent about a list comprising information regarding the video and/or audio programs and an image corresponding to one of the video and/or audio programs.

Senoh teaches a list comprising information regarding the video and/or audio programs and an image corresponding to each of the video and/or audio programs (Para. 0122, ll. 4-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki to include a list comprising information regarding the video and/or audio programs and an image corresponding to each of the video and/or audio programs as taught by Senoh in order to support trick play from a digital storage medium.

Regarding claim 56, Nanki teaches a program guide comprising video/audio data such as program title, channel number, and date which reads on “the apparatus, wherein the program list comprises a list of one or more of title information, recording date information and reproducing time information of the video and/or audio programs, and the image corresponding to the one of the video and/or audio programs” (Para. 0065 & figure 5).

Regarding claim 62, Nanki teaches a receiving and reproducing device including an external storage device which reads on “a video recording/reproducing apparatus comprising the apparatus, further comprising the storage device to store the video and/or audio programs” (figure 2, label 200).

Regarding claim 64, Nanki teaches the video recording/reproducing apparatus of claim 62, wherein the video and/or audio programs stored in the storage device are data compressed according to a predetermined compression format (Para. 0056).

Regarding claim 65, Nanki teaches the video recording/reproducing apparatus of claim 64, wherein the predetermined compression format is an MPEG compression format (Para. 0056).

Regarding claim 66, Nanki teaches the video recording/reproducing apparatus, further comprising an input/output terminal unit for receiving a video and/or audio program from a plurality of video and/or audio program sources (Para. 0028, II. 1-5).

Regarding claim 69, Nanki teaches a program guide for requesting the contents of a recording medium of a receiving, recording and reproducing device using a remote controller which reads on “an interface unit for receiving a request signal to display the

information regarding the video and/or audio programs stored in the storage device” (Para. 0062: Nanki teaches displaying a program guide including program titles processed by a controller which reads on “and a main control unit for providing information comprising: one or more of title information, recording date information and reproducing time information of the video and/or audio programs” (Para. 0065, & figure 5).

Nanki is silent about an image corresponding to each of the video and/or audio programs.

Senoh teaches an image corresponding to each of the video and/or audio programs (Para. 0122, ll. 4-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki to include an image corresponding to each of the video and/or audio programs as taught by Senoh in order to support trick play from a digital storage medium.

Regarding claim 70, Nanki teaches an apparatus for displaying a program guide including program titles processed by a controller which reads on “the apparatus, wherein the main control unit outputs a signal corresponding to the information to display the information on a display screen” (Para. 0065).

Regarding claim 71, Nanki teaches a program guide that allows easy access to program on recording medium which reads on “the apparatus; wherein the information is displayed so as to allow access to a video and/or audio program amongst the video and/or audio programs based on a selection made in the display screen” (Para. 0063).

Regarding claim 72, Nanki teaches a program title information in a program guide which reads on "the apparatus, wherein the information comprises one or more of the title information, recording date information and reproducing time information of each of the video and/or audio programs, and images corresponding to the respective video and/or audio programs" (Para. 0054).

Regarding claim 75, Nanki teaches a receiving and reproducing device including an external storage device which reads on "a video recording/reproducing apparatus comprising the apparatus, further comprising the storage device to store the video and/or audio programs" (figure 2, label 200).

Regarding claim 77, Nanki teaches MPEG-2 encoded video/audio data for listed programs which reads on "the video recording/reproducing apparatus of claim 75, wherein the video and/or audio programs stored in the storage device are data compressed according to an MPEG compression format" (Para. 0056).

Regarding claim 78, Nanki teaches a receiving and reproducing apparatus with an input terminal to receive modulated audio/video/data signals which reads on "the video recording/reproducing apparatus of claim 75, further comprising an input/output terminal unit for receiving a video and/or audio program from a plurality of video and/or audio program sources" (Para. 0028, ll. 1-5).

Regarding claim 79, Nanki teaches the video recording/reproducing apparatus, wherein the storage device is a hard disc drive (Para. 0088, ll. 2-3 (DVD)).

Regarding claim 82, Nanki teaches requesting the contents of a recording medium of a receiving, recording and reproducing device using a remote controller

which reads on "an interface unit for receiving a request signal to display the information regarding the video and/or audio programs stored in the storage device;" (Par. 0062), Nanki teaches displaying a program guide with program title information which reads on "and a main control unit for providing information comprising: one or more of title information, recording date information and reproducing time information of one of the video and/or audio programs" (0065, figure 5).

Nanki is silent about images corresponding to the respective video and/or audio programs.

Senoh teaches images corresponding to the respective video and/or audio programs (Para. 0122, ll. 4-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki to include images corresponding to the respective video and/or audio programs as taught by Senoh in order to support trick play from a digital storage medium.

Regarding claim 83, Nanki teaches MPEG-2 encoded video/audio data for listed programs which reads on "the apparatus, wherein the video and/or audio programs stored in the storage device are data compressed according to MPEG compression format" (0056).

Regarding claim 84, Nanki teaches DVD as the recording medium which reads on "a video recording/reproducing apparatus comprising the apparatus, further comprising the storage device to store the video and/or audio programs" (Para. 0052).

Regarding claim 89, Nanki teaches a program title information in a program guide which reads on “the video recording/reproducing apparatus, wherein the information comprising the one or more of title information, recording date information and reproducing time information of the one of the video and/or audio programs is displayed” (Para. 0054).

Nanki is silent about in response to a selection of a corresponding one of the images being displayed.

Senoh teaches in response to a selection of a corresponding one of the images being displayed (Para. 0122, ll. 4-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki to include in response to a selection of a corresponding one of the images being displayed as taught by Senoh in order to support trick play from a digital storage medium.

4. Claims 22, 25, 42, 54, 74, and 91-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Shiga et al US Patent 7,434,245 (hereafter referenced as Shiga).

Regarding claim 22, Nanki and Senoh are silent about the method, wherein the image corresponding to one of the video and/or audio programs is a still image.

Shiga teaches displaying a still image and text data in an EPG which meets “the method, wherein the image corresponding to one of the video and/or audio programs is a still image” (column 8, lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the method, wherein the image corresponding to one of the video and/or audio programs is a still image as taught by Shiga in order to easily identify respective programs.

Regarding claim 25, Nanki and Senoh are silent about the method, wherein the displaying of the program list comprises displaying a list of the video and/or audio programs and images corresponding to the respective video and/or audio programs of the list.

Shiga teaches displaying a still image and text data in an EPG which meets "the method, wherein the displaying of the program list comprises displaying a list of the video and/or audio programs and images corresponding to the respective video and/or audio programs of the list" (column 8, lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the method, wherein the displaying of the program list comprises displaying a list of the video and/or audio programs and images corresponding to the respective video and/or audio programs of the list as taught by Shiga in order to easily identify respective programs.

Regarding claim 42, Nanki and Senoh are silent about the method, wherein the image corresponding to one of the video and/or audio programs is one of a still image and a motion image.

Shiga teaches displaying a still image and text data in an EPG which meets "the method, wherein the image corresponding to one of the video and/or audio programs is one of a still image and a motion image" (column 8, lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the method, wherein the image corresponding to one of the video and/or audio programs is one of a still image and a motion image as taught by Shiga in order to easily identify respective programs.

Regarding claim 54, Nanki and Senoh are silent about the apparatus, wherein the image corresponding to one of the video and/or audio programs is a still image.

Shiga teaches displaying a still image and text data in an EPG which meets "the apparatus, wherein the image corresponding to one of the video and/or audio programs is a still image" (column 8, lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the apparatus, wherein the image corresponding to one of the video and/or audio programs is a still image as taught by Shiga in order to easily identify respective programs.

Regarding claim 74, Nanki, and Senoh are silent about the apparatus, wherein the image corresponding to one of the video and/or audio programs is one of a still image and a motion image.

Shiga teaches displaying a still image and text data in an EPG which meets "the apparatus, wherein the image corresponding to one of the video and/or audio programs is one of a still image and a motion image" (column 8, lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the apparatus, wherein the image corresponding to one of the video and/or audio programs is one of a still image and a motion image as taught by Shiga in order to easily identify respective programs.

Regarding claim 91, Nanki, Senoh and Shiga are silent about the method wherein each of said images is a still image extracted from said video and/or audio programs.

Legrand teaches extracting the I-frame of an MPEG-2 bit stream which reads on "the method wherein each of said images is a still image extracted from said video and/or audio programs" (Column 9, 44-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki, Senoh and Shiga to include a still image program guide as taught by Legrand in order to provide a child friendly guide.

Regarding claim 92, Nanki is silent about the apparatus wherein the main control unit displays the program list comprising information of a plurality of said video and/or audio programs are simultaneously displayed and where an image of each of said video and/or audio programs is displayed on the display screen.

Legrand teaches nine still images corresponding to nine channels all displayed on the same screen at the same time which reads on "the apparatus wherein the main control unit displays the program list comprising information of a plurality of said video and/or audio programs are simultaneously displayed and where an image of each of said video and/or audio programs is displayed on the display screen" (figure 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki to include a still image program guide as taught by Legrand in order to provide a visual user friendly guide.

5. Claims 23, 26-28, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Shiga, in view of Legrand US Patent 6,020,930 (hereafter referenced as Legrand).

Regarding claim 23, Nanki, Senoh and Shiga are silent about the method, wherein the still image is an image extracted from a predetermined part of the corresponding video and/or audio program.

Legrand teaches extracting the I-frame of an MPEG-2 bit stream which reads on "the method wherein each of said images is a still image extracted from said video and/or audio programs" (Column 9, 44-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki, Senoh and Shiga to include the method, wherein the still image is an image extracted from a predetermined

part of the corresponding video and/or audio program as taught by Legrand in order to provide a visually friendly user guide.

Regarding claim 26, Nanki, Senoh and Shiga are silent about the method, wherein the displaying of the program list comprises displaying the information regarding the video and/or audio programs in a predetermined order and images corresponding to the respective video and/or audio programs.

Legrand teaches list of audio visual programs with corresponding still images wherein user can predetermine the order of the images in the picture guide which reads on "the method, wherein the displaying of the program list comprises displaying the information regarding the video and/or audio programs in a predetermined order and images corresponding to the respective video and/or audio programs" (Column 7, 1-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki, Senoh and Shiga to include the method, wherein the displaying of the program list comprises displaying the information regarding the video and/or audio programs in a predetermined order and images corresponding to the respective video and/or audio programs as taught by Legrand in order provide a visual electronic program guide.

Regarding claim 27, Nanki teaches a program title information in a program guide which reads on "the method, wherein the information regarding the video and/or audio programs comprises one or more of title information, recording date information,

and reproducing time information of each of the video and/or audio programs" (Para. 0054).

Regarding claim 28, Nanki, Senoh and Shiga are silent about the method, wherein the images are displayed according to the predetermined order of the information.

Legrand teaches list of audio visual programs with corresponding still images wherein the corresponding image appears in separate window and programs are listed in a sequence predetermined by user which reads on "the method, wherein the images are displayed according to the predetermined order of the information" (Column 7, 1-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki, Senoh and Shiga to include the method, wherein the images are displayed according to the predetermined order of the information as taught by Legrand in order provide a visual electronic program guide.

Regarding claim 55, Nanki, Senoh and Shiga are silent about the method, wherein the still image is an image extracted from a predetermined part of the corresponding video and/or audio program.

Legrand teaches extracting the I-frame of an MPEG-2 bit stream which reads on "the apparatus, wherein the still image is an image extracted from a predetermined part of the corresponding video and/or audio program" (Column 9, 44-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki, Senoh and Shiga to include the apparatus, wherein the still image is an image extracted from a predetermined part of the corresponding video and/or audio program as taught by Legrand in order to provide a visually friendly user guide.

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Shiga, in view of Legrand, in view of Drazin et al US Patent Publication 2004/0237108 (hereafter referenced as Drazin).

Regarding claim 29, Nanki, Senoh, Shiga, and Legrand are silent about the method, wherein the information regarding the video and/or audio programs comprises the recording date information of each of the video and/or audio programs, and the recording date information are displayed from the earliest recording date to the latest recording date.

Drazin teaches the method, wherein the information regarding the video and/or audio programs comprises the recording date information of each of the video and/or audio programs, and the recording date information are displayed from the earliest recording date to the latest recording date (Para. 0197, ll. 14-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki, Senoh, Shiga, and Legrand to include the method, wherein the information regarding the video and/or audio programs comprises the recording date information of each of the video and/or audio programs, and the recording date information are displayed from the earliest

recording date to the latest recording date as taught by Drazin in order to allow user to quickly access and manage recorded data by arranging in time order.

7. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Shiga, in view of Legrand, in view of Bolanos et al US Patent 5,793,364 (hereafter referenced as Bolanos).

Regarding claim 30, Nanki, Senoh, Shiga and Legrand are silent about the method, further comprising: receiving a request signal to edit the information corresponding to respective one of the video and/or audio programs; and displaying a user input screen to facilitate the editing of the information corresponding to the respective one of the video and/or audio programs.

Bolanos teaches program name information editing by user on program list which reads on "the method, further comprising: receiving a request signal to edit the information corresponding to respective one of the video and/or audio programs; and displaying a user input screen to facilitate the editing of the information corresponding to the respective one of the video and/or audio programs" (Column 4, 66-67 and Column 5, 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki, Senoh, Shiga and Legrand to include the method, further comprising: receiving a request signal to edit the information corresponding to respective one of the video and/or audio programs; and displaying a user input screen to facilitate the editing of the information corresponding to

the respective one of the video and/or audio programs as taught by Bolanos in order to provide a customizable program guide.

8. Claims 41, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Bolanos.

Regarding claim 41, Nanki and Senoh are silent about receiving a request signal to edit the information corresponding to one of the video and/or audio programs; and displaying a user input screen to facilitate the editing of the information corresponding to one of the video and/or audio programs.

Bolanos teaches the method wherein user has the ability to edit programs on program guide stored in a device memory while being displayed on a screen which reads on "receiving a request signal to edit the information corresponding to one of the video and/or audio programs; and displaying a user input screen to facilitate the editing of the information corresponding to one of the video and/or audio programs" (figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include receiving a request signal to edit the information corresponding to one of the video and/or audio programs; and displaying a user input screen to facilitate the editing of the information corresponding to one of the video and/or audio programs as taught by Bolanos in order to provide a user friendly program guide.

Regarding claim 73, Nanki and Senoh are silent about the apparatus, wherein: the interface unit further receives a request signal to edit the information corresponding to one of the video and/or audio programs; and the main control unit further provides a

user input screen to facilitate the editing of the information corresponding to the one of the video and/or audio programs.

Bolanos teaches program name information editing by user on program guide which reads on "the apparatus, wherein: the interface unit further receives a request signal to edit the information corresponding to one of the video and/or audio programs; and the main control unit further provides a user input screen to facilitate the editing of the information corresponding to the one of the video and/or audio programs" (Column 4, 66-67 & Column 5, 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the apparatus, wherein: the interface unit further receives a request signal to edit the information corresponding to one of the video and/or audio programs; and the main control unit further provides a user input screen to facilitate the editing of the information corresponding to the one of the video and/or audio programs as taught by Bolanos in order to provide user customizable guide.

9. Claims 31, 63, and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Nozaki et al US Patent 6,396,998 (hereafter referenced as Nozaki).

Regarding claim 31, Nanki and Senoh are silent about the video recording/reproducing apparatus, wherein the video and/or audio recording/reproducing apparatus is a combo-device further comprising a recording/reproducing unit to record/reproduce a video and/or audio program with

respect to the storage device, and an optical disc recording and/or reproducing unit to record and/or reproduce a video and/or audio program with respect to a disc.

Nozaki teaches a DVD recording and reproducing apparatus comprising wherein audio/video information is recorded on the first disc 11A and copies of the reproduced information is dubbed to another DVD-RAM disc 11B which meets "the video recording/reproducing apparatus, wherein the video and/or audio recording/reproducing apparatus is a combo-device further comprising a recording/reproducing unit to record/reproduce a video and/or audio program with respect to the storage device, and an optical disc recording and/or reproducing unit to record and/or reproduce a video and/or audio program with respect to a disc" (column 5, 49-55 (as shown in figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki and Senoh to include the video recording/reproducing apparatus, wherein the video and/or audio recording/reproducing apparatus is a combo-device further comprising a recording/reproducing unit to record/reproduce a video and/or audio program with respect to the storage device, and an optical disc recording and/or reproducing unit to record and/or reproduce a video and/or audio program with respect to a disc as taught by Nozaki in order to support high speed dubbing of audio/video information.

Regarding claim 63, Nanki and Senoh are silent about the video recording/reproducing apparatus, wherein the video and/or audio recording/reproducing apparatus is a combo-device further comprising a recording/reproducing unit to record/reproduce a video and/or audio program with

respect to the storage device, and an optical disc recording and/or reproducing unit to record and/or reproduce a video and/or audio program with respect to a disc.

Nozaki teaches a DVD recording and reproducing apparatus comprising wherein audio/video information is recorded on the first disc 11A and copies of the reproduced information is dubbed to another DVD-RAM disc 11B which meets "the video recording/reproducing apparatus, wherein the video and/or audio recording/reproducing apparatus is a combo-device further comprising a recording/reproducing unit to record/reproduce a video and/or audio program with respect to the storage device, and an optical disc recording and/or reproducing unit to record and/or reproduce a video and/or audio program with respect to a disc" (column 5, 49-55 (as shown in figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki and Senoh to include the video recording/reproducing apparatus, wherein the video and/or audio recording/reproducing apparatus is a combo-device further comprising a recording/reproducing unit to record/reproduce a video and/or audio program with respect to the storage device, and an optical disc recording and/or reproducing unit to record and/or reproduce a video and/or audio program with respect to a disc as taught by Nozaki in order to support high speed dubbing of audio/video information.

Regarding claim 76, Nanki and Senoh are silent about the video recording/reproducing apparatus, wherein the video and/or audio recording/reproducing apparatus is a combo-device further comprising a

recording/reproducing unit to record/reproduce a video and/or audio program with respect to the storage device, and an optical disc recording and/or reproducing unit to record and/or reproduce a video and/or audio program with respect to a disc.

Nozaki teaches a DVD recording and reproducing apparatus comprising wherein audio/video information is recorded on the first disc 11A and copies of the reproduced information is dubbed to another DVD-RAM disc 11B which meets "the video recording/reproducing apparatus, wherein the video and/or audio recording/reproducing apparatus is a combo-device further comprising a recording/reproducing unit to record/reproduce a video and/or audio program with respect to the storage device, and an optical disc recording and/or reproducing unit to record and/or reproduce a video and/or audio program with respect to a disc" (column 5, 49-55 (as shown in figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki and Senoh to include the video recording/reproducing apparatus, wherein the video and/or audio recording/reproducing apparatus is a combo-device further comprising a recording/reproducing unit to record/reproduce a video and/or audio program with respect to the storage device, and an optical disc recording and/or reproducing unit to record and/or reproduce a video and/or audio program with respect to a disc as taught by Nozaki in order to support high speed dubbing of audio/video information.

10. Claims 44-46, 49-51, 68, 80-81, and 85-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Krakirian et al US Patent Publication 2003/0227485 (hereafter referenced as Krakirian).

Regarding claim 44, Nanki teaches the method, further comprising: receiving a request signal to display a menu to access a plurality of major functions pertaining to the video recording/reproducing apparatus (figure 5, labels 303, & 304).

Nanki and Senoh are silent about displaying the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus.

Krakirian teaches displaying the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus (Para. 0040, ll. 3-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include displaying the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus as taught by Krakirian in order to effectively control connected devices.

Regarding claim 45, Nanki teaches two functional buttons of the recoding device configured to reserve a program or display more details of a program which reads on "the method wherein the request signal to display the information regarding video and/or

audio programs corresponds to a selection of the digital recorder submenu" (figure 5, 303, 304).

Regarding claim 46, Nanki, teaches the method, wherein the video and/or audio programs are stored in a hard disc drive of the video and/or audio recording/reproducing apparatus (Para. 0088, II. 2-3 (DVD)).

Regarding claim 49, Nanki teaches requesting the contents of a recording medium of a receiving, recording and reproducing device using a remote controller which reads on "receiving a request signal to display a menu to access a plurality of major functions pertaining to the video recording/reproducing apparatus" (Para. 0062).

Nanki and Senoh are silent about displaying the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus.

Krakirian teaches displaying the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus (Para. 0040, II. 3-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include displaying the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus as taught by Krakirian in order to effectively control connected devices.

Regarding claim 50, Nanki teaches two functional buttons of the recoding device configured to reserve a program or display more details of a program which reads on "the method, wherein the request signal to display the information regarding video and/or audio programs corresponds to a selection of the digital recorder submenu" (figure 5, labels 303, & 304).

Regarding claim 51, Nanki, teaches the method, wherein the video and/or audio programs are stored in a hard disc drive of the video and/or audio recording/reproducing apparatus (Para. 0088, ll. 2-3 (DVD)).

Regarding claim 68, Nanki teaches the video recording/reproducing apparatus, wherein: the interface unit further receives a menu request signal to access a plurality of major functions pertaining to the video recording/reproducing apparatus (figure 5, Labels 303, & 304).

Nanki and Senoh are silent about the main control unit further provides a menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus.

Krakirian teaches displaying the main control unit further provides a menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus (Para. 0040, ll. 3-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the main control unit further provides a menu comprising one or more of digital

recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus as taught by Krakirian in order to effectively control connected devices.

Regarding claim 80, Nanki teaches the video recording/reproducing apparatus, wherein: the interface unit further receives a request signal to display a menu to access a plurality of major functions pertaining to the video recording/reproducing apparatus (figure 5, labels 303, & 304).

Nanki and Senoh are silent about the main control unit further provides the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus.

Krakirian teaches the main control unit further provides the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus (Para. 0040, ll. 3-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the main control unit further provides the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus as taught by Krakirian in order to effectively control connected devices.

Regarding claim 81, Nanki teaches two functional buttons of the recoding device configured to reserve a program or display more details of a program which reads on “the video recording/reproducing apparatus, wherein the request signal to display the information regarding video and/or audio programs corresponds to a selection of the digital recorder submenu” (figure 5, labels 303, & 304).

Regarding claim 85, Nanki teaches the video recording/reproducing apparatus, wherein: the interface unit further receives a menu request signal to access a plurality of major functions pertaining to the video recording/reproducing apparatus (figure 5, labels 303, & 304).

Nanki and Senoh are silent about the main control unit further provides the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus.

Krakirian teaches the main control unit further provides the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus (Para. 0040, ll. 3-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the main control unit further provides the menu comprising one or more of digital recorder, juke box player, and photo album submenus corresponding to the respective functions of the video recording/reproducing apparatus as taught by Krakirian in order to effectively control connected devices.

Regarding claim 86, Nanki teaches two functional buttons of the recoding device configured to reserve a program or display more details of a program which reads on "the video recording/reproducing apparatus, wherein the request signal to display the information regarding video and/or audio programs corresponds to a selection of the digital recorder submenu" (figure 5, labels 303, & 304).

Regarding claim 87, Nanki, teaches the video recording/reproducing apparatus, wherein the storage device is a hard disc drive (Para. 0088, ll. 2-3 (DVD)).

Regarding claim 88, Nanki, teaches the video recording/reproducing apparatus, further comprising an input/output terminal unit for receiving a video and/or audio program from a plurality of video and/or audio program sources (Para. 0028, ll. 1-5).

11. Claims 57-59 and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Legrand.

Regarding claim 57, Nanki and Senoh are silent about the apparatus, wherein the program list comprises the information regarding the video and/or audio programs in a predetermined order and images corresponding to the respective video and/or audio programs.

Legrand teaches list of audio visual programs with corresponding still images wherein user can predetermine the order of the images in the picture guide which reads on "the apparatus, wherein the program list comprises the information regarding the video and/or audio programs in a predetermined order and images corresponding to the respective video and/or audio programs" (Column 7, 1-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the apparatus, wherein the program list comprises the information regarding the video and/or audio programs in a predetermined order and images corresponding to the respective video and/or audio programs as taught by Legrand in order to provide visual help in selecting programs of interest.

Regarding claim 58, Nanki teaches a program title information in a program guide which reads on "the apparatus, wherein the information regarding the video and/or audio programs comprises one or more of title information, recording date information, and reproducing time information of each of the video and/or audio programs" (Para. 0054).

Regarding claim 59, Nanki and Senoh are silent about the apparatus, wherein the images are displayed according to the predetermined order of the information.

Legrand teaches list of audio visual programs with corresponding still images wherein the corresponding image appears in separate window and programs are listed in a sequence predetermined by user which reads on "the apparatus, wherein the images are displayed according to the predetermined order of the information" (Column 7, 1-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki and Senoh to include the apparatus, wherein the images are displayed according to the

predetermined order of the information as taught by Legrand in order to provide visual help in selecting programs of interest.

Regarding claim 90, Nanki and Senoh are silent about the method wherein the information of a plurality of said video and/or audio programs are simultaneously displayed and where an image of each of said video and/or audio programs is displayed on the display screen.

Legrand teaches nine still images corresponding to nine channels all displayed on the same screen at the same time which reads on "the method wherein the information of a plurality of said video and/or audio programs are simultaneously displayed and where an image of each of said video and/or audio programs is displayed on the display screen" (figure 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki to include a still image program guide as taught by Legrand in order to provide a child friendly guide.

12. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Legrand, in view of Drazin.

Regarding claim 60, Nanki, Senoh, Shiga, and Legrand are silent about the apparatus wherein the information regarding the video and/or audio programs comprises the recording date information of each of the video and/or audio programs, and the recording date information are displayed from the earliest recording date to the latest recording date.

Drazin teaches the apparatus wherein the information regarding the video and/or audio programs comprises the recording date information of each of the video and/or audio programs, and the recording date information are displayed from the earliest recording date to the latest recording date (Para. 0197, ll. 14-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki, Senoh, Shiga, and Legrand to include the apparatus wherein the information regarding the video and/or audio programs comprises the recording date information of each of the video and/or audio programs, and the recording date information are displayed from the earliest recording date to the latest recording date as taught by Drazin in order to allow user to quickly access and manage recorded data by arranging in time order.

13. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Legrand, in view of Bolanos.

Regarding claim 61, Nanki and Legrand are silent the apparatus, wherein: the interface unit further receives a request signal to edit the information corresponding to respective one of the video and/or audio programs; and the main control unit further provides a user input screen to facilitate the editing of the information corresponding to the respective one of the video and/or audio programs.

Bolanos teaches program name information editing by user on program guide which reads on "the apparatus, wherein: the interface unit further receives a request signal to edit the information corresponding to respective one of the video and/or audio programs; and the main control unit further provides a user input screen to facilitate the

editing of the information corresponding to the respective one of the video and/or audio programs" (Column 4, 66-67 and Column 5, 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the program guide of Nanki to include programs guide information editing as taught by Bolanos in order to provide a more flexible program guide.

14. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nanki, in view of Senoh, in view of Yap et al US Patent Publication 2007/0127887, in view of Nozaki, in view of Yamagishi US Patent 5,857,059, in view of Kuroda et al US Patent Publication 2004/0101282 (hereafter referenced as Yap, Yamagishi, and Kuroda).

Regarding claim 67, Nanki teaches a tuner for adjusting a receiving channel in order for a broadcast signal to be received through the input/output terminal unit (figure 2, label 11).

Nanki and Senoh are silent about a switching unit for selectively and mutually connecting input/output terminals of the input/output terminal unit connected to the switching unit; an input/output control unit for controlling the tuner and the switching unit; a video decoder for decoding and outputting a video signal received through one of the input/output terminal unit and the switching unit; an audio A/D converter for digitizing an analog audio signal which is selected via the switching unit; an encoder for encoding the analog audio signal from the audio A/D converter and video signal from the video decoder according to a predetermined compression format, and storing the encoded data in the storage device; a data management unit for managing data with respect to

the storage device; an audio D/A converter for converting a digital audio signal output from a decoder into an analog audio signal and outputting the converted signal to the switching unit; and a video encoder for encoding a video signal output from the decoder and outputting the encoded video signal to the switching unit.

Yap teaches a switching unit for selectively and mutually connecting input/output terminals of the input/output terminal unit connected to the switching unit (figure 1, label 50: Yap teaches an input/output control unit for controlling the tuner and the switching unit (Para. 0071, ll. 4-9: Yap teaches a video decoder for decoding and outputting a video signal received though one of the input/output terminal unit and the switching unit (figure 1, label 60: Yap teaches outputting the converted signal to the switching (figure, labels 50, & 60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki and Senoh to include teaches a switching unit for selectively and mutually connecting input/output terminals of the input/output terminal unit connected to the switching unit; an input/output control unit for controlling the tuner and the switching unit; a video decoder for decoding and outputting a video signal received though one of the input/output terminal unit and the switching unit; outputting the converted signal to the switching as taught by Yap in order to support editing and managing functions of the recording and reproducing device.

Yap is silent about an audio A/D converter for digitizing an analog audio signal which is selected via the switching unit; an encoder for encoding the analog audio signal from the audio A/D converter and video signal from the video decoder according to a

predetermined compression format, and storing the encoded data in the storage device; a data management unit for managing data with respect to the storage device; an audio D/A converter for converting a digital audio signal output from a decoder into an analog audio signal unit; and a video encoder for encoding a video signal output from the decoder and outputting the encoded video signal to the switching unit.

Nozaki teaches an audio A/D converter for digitizing an analog audio signal which is selected via the switching unit; an encoder for encoding the analog audio signal from the audio A/D converter and video signal from the video decoder according to a predetermined compression format, and storing the encoded data in the storage device (figure 1, label 16D: Nozaki teaches an audio D/A converter for converting a digital audio signal output from a decoder into an analog audio signal unit (figure 1, labels 15F & 15H: Nozaki teaches a video encoder for encoding a video signal output from the decoder (figure 1, label 16C).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki and Yap to include about an audio A/D converter for digitizing an analog audio signal which is selected via the switching unit; an encoder for encoding the analog audio signal from the audio A/D converter and video signal from the video decoder according to a predetermined compression format, and storing the encoded data in the storage device; an audio D/A converter for converting a digital audio signal output from a decoder into an analog audio signal unit; and a video encoder for encoding a video signal output from the decoder as taught by Nozaki in order to support high speed video dubbing.

Nanki, Yap, and Nozaki are silent about a data management unit for managing data with respect to the storage device; and outputting the encoded video signal to the switching unit.

Yamagishi teaches a hard disk unit 12 with a data management unit 19 which reads on "a data management unit for managing data with respect to the storage device" (figure 1, label 19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify recording and reproducing device of Nanki, Yap and Nozaki to include a data management unit for managing data with respect to the storage device as taught by Yamagishi in order to optimize memory usage.

Nanki, Yap, Nozaki and Yamagishi are silent about outputting the encoded video signal to the switching unit.

Kuroda teaches outputting the encoded video signal to the switching unit (Para. 0088, ll. 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Nanki, Yap, Nozaki and Yamagishi to include outputting the encoded video signal to the switching unit as taught by Kuroda in order to support digital copy rights protection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY BANTAMOI whose telephone number is (571)270-3581. The examiner can normally be reached on Monday - Friday 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571) 272 7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anthony Bantamoi
Examiner
Art Unit 2623

/Anthony Bantamoi/
Examiner, Art Unit 2623

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2423